

CLAIMS:

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1. A method for the prevention of insulin dependent (type I) diabetes comprising administering to a prediabetic individual a composition comprising an anti-VLA4 antibody.
 2. A method according to claim 1, wherein the anti-VLA4 antibody selected from the group consisting of HP1/2, HP2/1, HP2/4, L25, and P4C2.
 3. A method according to claim 1, wherein the anti-VLA4 antibody is HP1/2, or a fragment thereof, capable of binding to VLA4.
 4. A method according to claim 1, wherein the anti-VLA4 antibody is a humanized HP1/2 antibody, or a fragment thereof, capable of binding to VLA4.
 5. A method according to claim 1, wherein the composition is administered at a dosage so as to provide from about 0.1 to about 10 mg/kg, based on the weight of the prediabetic individual.
 6. A method according to claim 1, wherein the composition is administered in an amount effective to coat VLA4-positive cells in the peripheral blood for a period of 1-14 days.
 7. A method according to claim 1, wherein the composition is administered in an amount effective to provide a plasma level of antibody in the prediabetic individual of at least 1 μ g/ml.
 8. A method according to claim 1, wherein the composition is administered prior to the development of overt diabetes, as measured by a serum glucose level of less than about 250 mg/dL.
 9. A method according to claim 1, wherein the prediabetic individual is a human.

10. A method for the treatment of diabetes comprising administering to a mammal with a susceptibility to diabetes, an antibody, a recombinant antibody, a chimeric antibody, fragments of such antibodies, a polypeptide or a small molecule capable of binding to the α_4 subunit of VLA4, or combinations of any of the foregoing, in "an amount effective" to provide inhibition of onset of diabetes.

11. A method according to claim 10, wherein the antibody, polypeptide or molecule is selected from monoclonal antibody HP1/2; Fab, Fab', F(ab')₂, or F(v) fragments of such antibody; soluble VCAM-1 or fibronectin polypeptides; or small molecules that bind to the VCAM-1 or fibronectin binding domain of VLA4.

12. A method according to claim 10, wherein the composition comprises a plurality of anti-VLA4 monoclonal antibodies or VLA4-binding fragments thereof.

13. A method according to claim 10, wherein the composition is administered at a dosage so as to provide from about 0.1 to about 10 mg/kg of antibody, antibody fragment, polypeptide or small molecule, based on the weight of the susceptible mammal.

14. A method according to claim 10, wherein the composition is administered in "an amount effective" to coat VLA4-positive cells in the peripheral blood for a period of 1-14 days.

15. A method according to claim 10, wherein the composition is administered in an amount effective to provide a plasma level of antibody in the mammal of at least 1 μ g/ml over a period of 1-14 days.

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16. A pharmaceutical composition effective to provide inhibition of onset of diabetes consisting essentially of a monoclonal antibody recognizing VLA4 in a pharmaceutically acceptable carrier.

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